

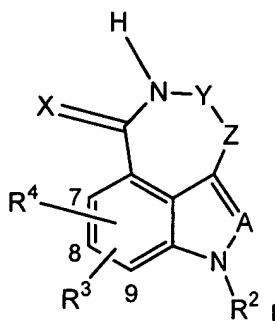
Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

We Claim:

1. (currently amended) A compound of the formula:



wherein:

X is =O or =S;

A is =CR¹- or =N-;

The group -Y-Z- has the formula -O-CH₂- or -N=CH-;

R¹ is:

(a) (C₁-C₈)alkyl;

(b) -C(=O)-R⁵;

(c) -C(=O)-NR⁶R⁷; or

(d) R³⁵, or R³⁶, (C₂-C₈)alkenyl, or (C₂-C₈)alkynyl {wherein each of said (C₂-C₈)alkenyl or (C₂-C₈)alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of F, Cl, OH, -NH₂, R⁴⁰, and R⁴²};

R² is

(a) H, OH, or (C₁-C₈)alkyl;

(b) -C(=O)-R⁸;

(c) -(C=S)-R⁹ or -(C=S)-NR¹⁰R¹¹; or

(d) R³⁸ or R³⁹;

R³ is

(a) (C₄-C₈)alkyl; R³⁸;

(b) -C(=O)-R¹²;

(c) -C(=O)-NR¹³R¹⁴;

(d) -NR¹⁵-C(=O)-R¹⁶;

(e) -NR¹⁷-SO₂R¹⁸;

(f) -NR¹⁹-SO_n-NR²⁰R²¹ {wherein n is 1 or 2};

(g) $-NR^{22}-(C=S)-R^{23}$ or $-NR^{22}-(C=S)-NR^{23}R^{24}$;

(h) R^{36} , (C_2-C_8) alkenyl, or (C_2-C_8) alkynyl {wherein each of said R^{36} (C_2-C_8) alkenyl or (C_2-C_8) alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of $-(C=O)-O-(C_1-C_8)$ alkyl, $-O-(C=O)-(C_1-C_8)$ alkyl, $-(C=O)-(C_1-C_8)$ alkyl, R^{40} , R^{41} , and R^{42} }; or

(i) R^{37} , $-NH_2$, $-NH((C_2-C_8)$ alkenyl), $-NH((C_2-C_8)$ alkynyl), $-N((C_1-C_8)$ alkyl)((C_2-C_8)alkenyl), or $-N((C_1-C_8)$ alkyl)((C_2-C_8)alkynyl) {wherein each of said R^{26} (C_2-C_8) alkenyl or (C_2-C_8) alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{40} , R^{41} , and R^{42} }; or

(j) R^{38} ;

R^4 is selected from the group consisting of H, F, Br, Cl, and (C_1-C_8) alkyl;

R^5 is selected from the group consisting of H, (C_1-C_8) alkyl, (C_1-C_8) alkyl-O-, and R^{36} ;

Each R^6 and R^7 are independently selected from the group consisting of H, (C_1-C_8) alkyl, and R^{36} ;

R^8 is selected from the group consisting of (C_1-C_8) alkyl, (C_2-C_8) alkenyl, (C_2-C_8) alkynyl, $-NH_2$, R^{36} , and R^{37} ;

Each of R^9 , R^{10} and R^{11} are independently selected from the group consisting of H, (C_1-C_8) alkyl, and R^{36} ;

R^{12} is selected from the group consisting of H, OH, (C_1-C_8) alkyl, (C_1-C_8) alkyl-O-, and R^{36} ;

R^{13} is H or (C_1-C_8) alkyl;

R^{14} is selected from the group consisting of H, (C_1-C_8) alkyl, $-CH_2-(C=O)-O-(C_1-C_8)$ alkyl, and R^{36} ;

R^{15} is H or (C_1-C_8) alkyl;

R^{16} is selected from the group consisting of H, (C_1-C_8) alkyl, (C_2-C_8) alkenyl, (C_2-C_8) alkynyl, $-NH_2$, R^{36} , and R^{37} ;

wherein said R^{16} (C_2-C_8) alkenyl or (C_2-C_8) alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{40} ;

R^{17} is selected from the group consisting of H, (C_1-C_8) alkyl, and R^{36} ;

R^{18} is (C_1-C_8) alkyl or R^{36} ;

R^{19} , R^{20} , and R^{21} are independently selected from the group consisting of H, (C_1-C_8) alkyl, and R^{36} ;

R^{22} , R^{23} and R^{24} are independently selected from the group consisting of H, (C_1-C_8) alkyl, and R^{36} ;

R^{25} is H or (C_1-C_8) alkyl;

R^{26} is selected from the group consisting of $-C(=O)-O-C(CH_3)_3$, (C_1-C_8) alkyl, $-(CR^{13}R^{15})_t(C_3-C_{10})$ cycloalkyl, $-(CR^{13}R^{15})_t(C_2-C_{10})$ heterocyclyl, $-(CR^{13}R^{15})_t(C_6-C_{10})$ aryl, and $-(CR^{13}R^{15})_t(C_1-C_{10})$ heteroaryl; wherein t is an integer from 0 to 2;

or R²⁵ and R²⁶ may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocyclyl ring;

R²⁷ is selected from the group consisting of (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

R²⁸ is selected from the group consisting of (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

R²⁹ is H or (C₁-C₈)alkyl;

R³⁰ is (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl;

or R²⁹ and R³⁰ may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocyclyl ring;

R³¹ is H or (C₁-C₈)alkyl;

R³² is independently selected from the group consisting of (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

or R³¹ and R³² may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocyclyl ring;

R³³ is (C₁-C₈)alkyl, -(CR¹³R¹⁵)_q(C₃-C₁₀)cycloalkyl, -(CR¹³R¹⁵)_q(C₂-C₁₀)heterocyclyl, -(CR¹³R¹⁵)_q(C₆-C₁₀)aryl, or -(CR¹³R¹⁵)_q(C₁-C₁₀)heteroaryl; wherein q is an integer from 0 to 2;

R³⁴ is (C₁-C₈)alkyl, -(CR¹³R¹⁵)_p(C₃-C₁₀)cycloalkyl, -(CR¹³R¹⁵)_p(C₂-C₁₀)heterocyclyl, -(CR¹³R¹⁵)_p(C₆-C₁₀)aryl, or -(CR¹³R¹⁵)_p(C₁-C₁₀)heteroaryl; wherein p is an integer from 0 to 2;

Each R³⁵ is independently selected from the group consisting of H, F, Cl, Br, I, CN, OH, NO₂, -NH₂, -NH-C(=O)-O-C(CH₃)₃, and CF₃;

Each R³⁶ is independently selected from the group consisting of (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

Each R³⁷ is independently selected from the group consisting of -NR²⁵R²⁶ and R²⁷-O-;

R³⁸ is R²⁸-SO_n-; wherein n is 0, 1, or 2 when -SO_n- is bonded to R²⁸ via an R²⁸ carbon atom, or wherein n is 1 or 2 when -SO_n- is bonded to R²⁸ via an R²⁸ ring nitrogen atom;

R³⁹ is R²⁹R³⁰N-SO_n-; wherein n is 1 or 2;

wherein each of said (C₁-C₈)alkyl, wherever it occurs in any of said R¹(a)-(d), R²(a)-(d), R³(a)-(j)-(i), R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹, R²², R²³, R²⁴, R²⁵, R²⁶, R²⁷, R²⁸, R²⁹, R³⁰, R³¹, R³², R³³, R³⁴, R³⁷, R³⁸, and R³⁹ is unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₂-C₈)alkenyl and R⁴⁰;

wherein each of said (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl, wherever it occurs in said R¹(b)-(d), R²(b)-(d), R³(a)-(j)-(i), R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸, R¹⁹, R²⁰, R²¹, R²², R²³, R²⁴, R²⁵, R²⁶, R²⁷, R²⁸, R³⁰,

R^{32} , R^{33} , R^{34} , R^{36} , R^{37} , R^{38} , and R^{39} is independently unsubstituted or substituted with one to four substituents independently selected from R^{40} ;

R^{40} is selected from the group consisting of (C₁-C₈)alkyl, R^{41} , R^{42} , and R^{43} ;

Each R^{41} is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO₂, -NH₂, -NH-C(=O)-O-C(CH₃)₃, COOH, -C(=O)(C₁-C₈)alkyl, -C(=O)-O-(C₁-C₈)alkyl, -NH-SO₂-(C₁-C₈)alkyl, -NH-SO₂-(C₆-C₁₀)aryl, and CF₃;

Each R^{42} is independently selected from the group consisting of (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

Each R^{43} is independently selected from the group consisting of:

-NR³¹R³², R³³-O-, and R³⁴-SO_n-; wherein n is 0, 1, or 2 when -SO_n- is bonded to R³⁴ via an R³⁴ carbon atom, or wherein n is 1 or 2 when -SO_n- is bonded to R³⁴ via an R³⁴ ring nitrogen atom;

wherein each of said (C₁-C₈)alkyl, wherever it occurs in any of R^{40} and R^{41} is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{44} and R^{45} ;

wherein each of said (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl, wherever it occurs in any of said R^{42} or R^{43} , is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{47} selected from the group consisting of (C₁-C₈)alkyl, R^{44} , and R^{45} ;

Each R^{44} is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO₂, -NH₂, -CF₃, -C(=NH)-NH₂, -C(=NH)-NH-OH, -C(=NH)-NH-O-(C₁-C₈)alkyl, -C(=O)-O-(C₁-C₈)alkyl, -O-C(=O)-(C₁-C₈)alkyl, -C(=O)-(C₁-C₈)alkyl, -C(=O)-NH₂, -C(=O)-NH(C₁-C₈)alkyl, -C(=O)-N<[(C₁-C₈)alkyl]₂, -NH-C(=O)-(C₁-C₈)alkyl, R^{37} , and R^{38} ;

Each R^{45} is independently selected from the group consisting of (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

wherein each of said (C₁-C₈)alkyl wherever it occurs in any of said R^{44} or R^{45} is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{46} and R^{47} ;

wherein each of said (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl, wherever it occurs in any of said R^{43} or R^{44} is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₁-C₈)alkyl, R^{46} and R^{47} ;

Each R^{46} is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO₂, -C(=NH)-NH₂, -C(=NH)-NH-OH, -C(=NH)-NH-O-(C₁-C₈)alkyl, -C(=O)-O-(C₁-C₈)alkyl, -O-C(=O)-(C₁-C₈)alkyl, -C(=O)-(C₁-C₈)alkyl, -C(=O)-NH₂, -C(=O)-NH(C₁-C₈)alkyl, -C(=O)-N<[(C₁-C₈)alkyl]₂, -NH-C(=O)-(C₁-C₈)alkyl, -C(=NH)-NH₂, -C(=NH)-NH-OH, -C(=NH)-NH-O-(C₁-C₈)alkyl, -C(=O)-O-(C₁-C₈)alkyl, -O-C(=O)-(C₁-C₈)alkyl, -C(=O)-(C₁-C₈)alkyl,

$-(C=O)-NH_2$, $-(C=O)-NH(C_1-C_8)alkyl$, $-(C=O)-N>[(C_1-C_8)alkyl]_2$, $-NH-(C=O)-(C_1-C_8)alkyl$, R^{37} , and R^{38} ; and

Each R^{47} is independently selected from the group consisting of $(C_3-C_{10})cycloalkyl$; $(C_2-C_{10})heterocyclyl$, $(C_6-C_{10})aryl$, and $(C_1-C_{10})heteroaryl$;

or a pharmaceutically acceptable salt thereof.

2. (canceled)

3. (original) The compound according to claim 1 wherein R^3 is selected from the group consisting of $(C_2-C_8)alkenyl$, $(C_2-C_8)alkynyl$, $(C_3-C_6)cycloalkyl$, $(C_2-C_{10})heterocyclyl$, phenyl, and $(C_1-C_{10})heteroaryl$; wherein each of said $(C_2-C_8)alkenyl$ or $(C_2-C_8)alkynyl$ is unsubstituted or substituted with one to three substituents independently selected from the group consisting of F, OH, $-NH_2$, $(C_1-C_8)alkyl-NH-$, $[(C_1-C_8)alkyl]_2>N-$, $(C_3-C_{10})cycloalkyl$, $(C_2-C_{10})heterocyclyl$, $(C_6-C_{10})aryl$, and $(C_1-C_{10})heteroaryl$; and wherein each of said $(C_3-C_6)cycloalkyl$, $(C_2-C_{10})heterocyclyl$, phenyl, or $(C_1-C_{10})heteroaryl$ is unsubstituted or substituted with one to four substituents independently selected from the group consisting of $(C_1-C_8)alkyl$, F, OH, $-NH_2$, $(C_1-C_8)alkyl-NH-$, $[(C_1-C_8)alkyl]_2>N-$, $(C_3-C_{10})cycloalkyl$, $(C_2-C_{10})heterocyclyl$, $(C_6-C_{10})aryl$, and $(C_1-C_{10})heteroaryl$.

4. (original) The compound according to claim 1 wherein R^3 is $-C(=O)-NR^{13}R^{14}$ {wherein R^{13} is H or $(C_1-C_8)alkyl$ }, wherein said R^{13} $(C_1-C_4)alkyl$ is unsubstituted or substituted with one to four substituents independently selected from the group consisting of F, OH, $-NH_2$, R^{41} , and R^{42} ; wherein each of said R^{36} is unsubstituted or substituted with one or two substituents independently selected from the group consisting of $(C_6-C_{10})aryl$, $(C_1-C_{10})heteroaryl$, $(C_2-C_{10})heterocyclyl$, $(C_1-C_8)alkyl-NH-$, and $[(C_1-C_8)alkyl]_2>N-$; and wherein each of said $(C_6-C_{10})aryl$ substituent is unsubstituted or substituted with one to three substituents independently selected from the group consisting of $(C_1-C_8)alkyl$, F, Cl, $-CF_3$, and OH.

5. (original) The compound according to claim 1 wherein R^3 is $-NR^{15}-C(=O)-R^{16}$; wherein R^{16} is $(C_1-C_8)alkyl$ unsubstituted or substituted with one to four substituents independently selected from the group consisting of OH, $R^{33}-O-$, CN, $-NH_2$, $(C_1-C_8)alkyl-NH-$, $-NH-(CR^{13}R^{15})_t(C_3-C_{10})cycloalkyl$, $-NH-(CR^{13}R^{15})_t(C_2-C_{10})heterocyclyl$, $-NH-(CR^{13}R^{15})_t(C_6-C_{10})aryl$, or $-NH-(CR^{13}R^{15})_t(C_1-C_{10})heteroaryl-NH-$ {wherein t is an integer from 0 to 2}, $[(C_1-C_8)alkyl]_2>N-$, $[(C_1-C_8)alkyl][(C_3-C_{10})cycloalkyl]>N-$, $(C_3-C_{10})cycloalkyl$, $(C_2-C_{10})heterocyclyl$, $(C_6-C_{10})aryl$, and $(C_1-C_{10})heteroaryl$; wherein said R^{33} is $(C_1-C_8)alkyl$, $-(CR^{13}R^{15})_q(C_3-C_{10})cycloalkyl$, $-(CR^{13}R^{15})_q(C_2-C_{10})heterocyclyl$, $-(CR^{13}R^{15})_q(C_6-C_{10})aryl$, or $-(CR^{13}R^{15})_q(C_1-C_{10})heteroaryl$; and wherein q is an integer from 0 to 2.

6. (original) The compound according to claim 5 wherein said $(C_3-C_{10})cycloalkyl$ substituent wherever it occurs is unsubstituted or substituted with one to four substituents independently selected from the group consisting of $(C_3-C_{10})cycloalkyl$, $(C_2-C_{10})heterocyclyl$, $(C_6-C_{10})aryl$, and $(C_1-C_{10})heteroaryl$.

7. (original) The compound according to claim 5 wherein said (C₆-C₁₀)aryl substituent wherever it occurs is unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₁-C₈)alkyl, F, Cl, Br, CN, OH, and CF₃.

8. (original) The compound according to claim 5 wherein said (C₂-C₁₀)heterocyclyl substituent wherever it occurs is unsubstituted or substituted with one or two substituents independently selected from the group consisting of (C₁-C₈)alkyl, -(C=O)-(C₁-C₈)alkyl, -(C=O)-O-(C₁-C₈)alkyl, -S-(C₁-C₈)alkyl, F, Br, OH, and CF₃.

9. (original) The compound according to claim 1 wherein R³ is -NR¹⁵-C(=O)-R¹⁶; wherein R¹⁶ is (C₂-C₈)alkenyl unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl; wherein said (C₆-C₁₀)aryl substituent is unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₁-C₈)alkyl, F, Cl, Br, CN, OH, and CF₃; and wherein said (C₂-C₁₀)heterocyclyl substituent is unsubstituted or substituted with one or two substituents independently selected from the group consisting of (C₁-C₈)alkyl, -(C=O)-(C₁-C₈)alkyl, -(C=O)-O-(C₁-C₈)alkyl, -S-(C₁-C₈)alkyl, F, Br, OH, and CF₃.

10. (original) The compound according to claim 1 wherein R³ is -NR¹⁵-C(=O)-R¹⁶; wherein R¹⁶ is (C₁-C₁₀)heteroaryl unsubstituted or substituted with one or two substituents independently selected from the group consisting of (C₁-C₈)alkyl, -(C=O)-(C₁-C₈)alkyl, -S-(C₁-C₈)alkyl, F, Cl, CN, OH, and CF₃.

11. (original) The compound according to claim 10 wherein said R¹⁶ is pyridinyl.

12. (original) The compound according to claim 1 wherein R³ is -NR¹⁵-C(=O)-R¹⁶; wherein R¹⁶ is (C₃-C₁₀)cycloalkyl unsubstituted or substituted with one or two substituents independently selected from the group consisting of (C₁-C₈)alkyl, F, Cl, CN, OH, NH₂, CF₃, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl; wherein said (C₆-C₁₀)aryl substituent is unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₁-C₈)alkyl, F, Cl, Br, CN, OH, and CF₃; and wherein said (C₂-C₁₀)heterocyclyl substituent is unsubstituted or substituted with one or two substituents independently selected from the group consisting of (C₁-C₈)alkyl, -(C=O)-(C₁-C₈)alkyl, -(C=O)-O-(C₁-C₈)alkyl, -S-(C₁-C₈)alkyl, F, Br, OH, and CF₃.

13. (original) The compound according to claim 12 wherein said R¹⁶ (C₃-C₁₀)cycloalkyl is selected from the group consisting of cyclopropyl and cyclohexyl.

14. (original) The compound according to claim 12 wherein said (C₆-C₁₀)aryl substituent is unsubstituted.

15. (original) The compound according to claim 1 wherein R³ is -NR¹⁵-C(=O)-R¹⁶; wherein R¹⁶ is (C₂-C₁₀)heterocyclyl unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₁-C₈)alkyl, -(C=O)-(C₁-C₈)alkyl, -(C=O)-O-(C₁-C₈)alkyl, F, Cl, CN, OH, and CF₃.

16. (original) The compound according to claim 15 wherein said R^{16} (C_2 - C_{10})heterocyclyl is selected from the group consisting of piperazinyl, piperidinyl, pyrrolidinyl, pyrrolidinonyl, thiadiazolyl, tetrahydroisoquinolyl, tetrahydronaphthalenyl, and indanyl.

17. (original) The compound according to claim 1 wherein R^3 is $-NR^{15}-C(=O)-R^{16}$; wherein R^{16} is phenyl unsubstituted or substituted with one to three substituents independently selected from the group consisting of (C_1 - C_8)alkyl, (C_1 - C_8)alkyl-O-, F, Cl, Br, CN, OH, and CF_3 .

18. (original) The compound according to claim 1 wherein R^1 is (C_1 - C_8)alkyl substituted with one to two substituents independently selected from the group consisting of F, Cl, -OH, - NH_2 , (C_1 - C_8)alkyl-NH-, $[(C_1-C_8)alkyl]_2>N$ -, and (C_1 - C_8)alkyl-O-; wherein each of said (C_1 - C_8)alkyl substituent, wherever it occurs, is independently unsubstituted or substituted with one to three substituents independently selected from the group consisting of - NH_2 , (C_1 - C_8)alkyl-NH-, $[(C_1-C_8)alkyl]_2>N$ -, -O-(C=O)-(C_1 - C_8)alkyl, (C_2 - C_{10})heterocyclyl, (C_6 - C_{10})aryl, and (C_1 - C_{10})heteroaryl.

19. (original) The compound according to claim 1 wherein R^1 is (C_2 - C_8)alkenyl or (C_2 - C_8)alkynyl; wherein each of said (C_2 - C_8)alkenyl or (C_2 - C_8)alkynyl is unsubstituted or substituted with one to two substituents independently selected from the group consisting of - NH_2 , (C_1 - C_8)alkyl-NH-, $[(C_1-C_8)alkyl]_2>N$ -, (C_2 - C_{10})heterocyclyl, and (C_1 - C_{10})heteroaryl; wherein each of said (C_1 - C_8)alkyl substituent, wherever it occurs, is independently unsubstituted or substituted with one to three substituents independently selected from the group consisting of - NH_2 , (C_1 - C_8)alkyl-NH-, $[(C_1-C_8)alkyl]_2>N$ -, -O-(C=O)-(C_1 - C_8)alkyl, (C_2 - C_{10})heterocyclyl, (C_6 - C_{10})aryl, and (C_1 - C_{10})heteroaryl.

20. (original) The compound according to claim 1 wherein R^1 is R^{36} selected from the group consisting of H, Cl, and Br.

21. (original) The compound according to claim 1 wherein R^1 is selected from the group consisting of (C_3 - C_6)cycloalkyl, (C_2 - C_{10})heterocyclyl, phenyl, and (C_1 - C_{10})heteroaryl; wherein each of said (C_2 - C_{10})heterocyclyl, phenyl, or (C_1 - C_{10})heteroaryl is unsubstituted or substituted with one to three substituents independently selected from the group consisting of (C_1 - C_8)alkyl, F, Cl, - NH_2 , -OH, (C_1 - C_8)alkyl-NH-, and $[(C_1-C_8)alkyl]_2>N$ -, wherein each of said (C_1 - C_8)alkyl substituent, wherever it occurs, is unsubstituted or substituted with one to three substituents selected from - NH_2 , (C_1 - C_8)alkyl-NH-, $[(C_1-C_8)alkyl]_2>N$ -, -O-(C=O)-(C_1 - C_8)alkyl, (C_2 - C_{10})heterocyclyl, (C_6 - C_{10})aryl, and (C_1 - C_{10})heteroaryl.

22. (original) The compound according to claim 1 wherein R^1 is $-C(=O)-R^5$; wherein R^5 is (C_1 - C_8)alkyl-O- or (C_2 - C_{10})heterocyclyl.

23. (original) The compound according to claim 1 wherein R^1 is $-C(=O)-NR^6R^7$; wherein each of said R^6 and R^7 are independently H or (C_1 - C_8)alkyl; and wherein each of said R^6 and R^7 (C_1 - C_8)alkyl are unsubstituted or substituted with one to three substituents independently selected

from the group consisting of OH, -NH₂, (C₁-C₈)alkyl-NH-, [(C₁-C₈)alkyl]₂>N-, (C₂-C₁₀)heterocyclyl, and (C₁-C₁₀)heteroaryl.

24. (original) The compound according to claim 1 wherein R² is H or (C₁-C₈)alkyl unsubstituted or substituted with one to four substituents independently selected from the group consisting of OH, -NH₂, (C₁-C₈)alkyl-NH-, [(C₁-C₈)alkyl]₂>N-, (C₂-C₁₀)heterocyclyl, and (C₁-C₁₀)heteroaryl.

25. (original) The compound according to claim 1 wherein R² is -C(=O)-R⁸, wherein R⁸ is selected from the group consisting of (C₁-C₈)alkyl, (C₂-C₈)alkenyl, (C₂-C₈)alkynyl, -NH₂, and R³⁷ selected from the group consisting of (C₁-C₈)alkyl-NH-, [(C₁-C₈)alkyl]₂>N-, and (C₁-C₈)alkyl-O-; wherein each of said R⁸ and R³⁷ (C₁-C₈)alkyl, wherever it occurs, is independently unsubstituted or substituted with one to four substituents independently selected from R⁴⁰ selected from the group consisting of F, OH, -NH₂, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, (C₁-C₁₀)heteroaryl; (C₁-C₈)alkyl-NH- and [(C₁-C₈)alkyl]₂>N-;

wherein each of said R⁴⁰ (C₁-C₈)alkyl, wherever it occurs, is independently unsubstituted or substituted with one to four substituents independently selected from R⁴⁴ independently selected from the group consisting of OH, -NH₂, (C₁-C₈)alkyl-NH-, [(C₁-C₈)alkyl]₂>N-, and (C₃-C₁₀)cycloalkyl-NH-;

wherein each of said each of said R⁴⁰ (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl, wherever it occurs, is independently unsubstituted or substituted with one to four substituents independently selected from R⁴⁷ selected from the group consisting of (C₁-C₈)alkyl, OH, -NH₂, (C₁-C₈)alkyl-NH-, [(C₁-C₈)alkyl]₂>N-, and (C₃-C₁₀)cycloalkyl-NH-; and

wherein each of said R⁴⁷ (C₁-C₈)alkyl, wherever it occurs, is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of OH, -NH₂, (C₁-C₈)alkyl-NH-, [(C₁-C₈)alkyl]₂>N-, and (C₃-C₁₀)cycloalkyl-NH.

26. (original) The compound according to claim 1 wherein R² is -C(=O)-R⁸, wherein R⁸ is selected from the group consisting of (C₃-C₆)cycloalkyl, (C₂-C₁₀)heterocyclyl, phenyl, or (C₁-C₁₀)heteroaryl; wherein each of said R⁸ (C₃-C₆)cycloalkyl, (C₂-C₁₀)heterocyclyl, phenyl, or (C₁-C₁₀)heteroaryl is unsubstituted or substituted with one to four substituents independently selected from R⁴⁰ selected from the group consisting of (C₁-C₈)alkyl, F, OH, -NH₂, (C₁-C₈)alkyl-NH-, [(C₁-C₈)alkyl]₂>N-, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl; wherein each of said R⁴⁰ (C₁-C₈)alkyl, wherever it occurs, is independently unsubstituted or substituted with one to four substituents independently selected from R⁴⁴ independently selected from the group consisting OH, -NH₂, (C₁-C₈)alkyl-NH-, [(C₁-C₈)alkyl]₂>N-, and (C₃-C₁₀)cycloalkyl-NH-; wherein each of said R⁴⁰ (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl is unsubstituted or substituted with one to four substituents independently selected from R⁴⁷ selected from the group consisting of (C₁-C₈)alkyl, OH, -NH₂,

(C₁-C₈)alkyl-NH-, [(C₁-C₈)alkyl]₂>N-, and (C₃-C₁₀)cycloalkyl-NH-; wherein each of said R⁴⁷ (C₁-C₈)alkyl, wherever it occurs, is unsubstituted or substituted with one to four substituents independently selected from the group consisting of OH, -NH₂, (C₁-C₈)alkyl-NH-, [(C₁-C₈)alkyl]₂>N-, and (C₃-C₁₀)cycloalkyl-NH.

27. (original) The compound according to claim 1 wherein said R³ is on position 8 of said compound of the formula I.

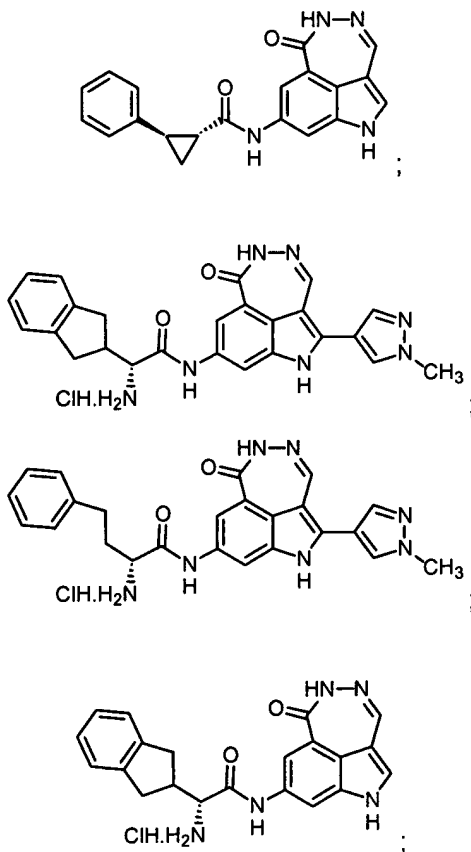
28. (original) The compound according to claim 1 wherein said R⁴ is on position 7 of said compound of the formula I.

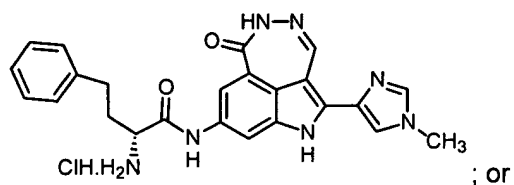
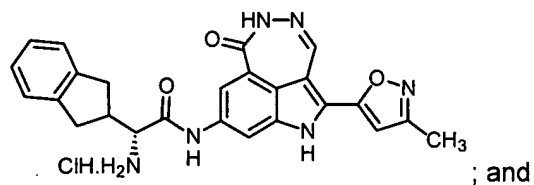
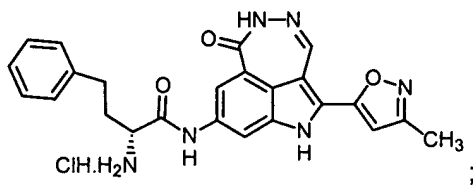
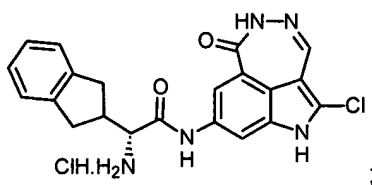
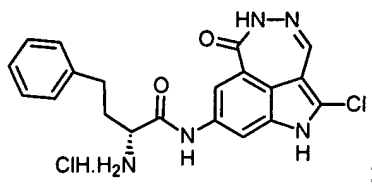
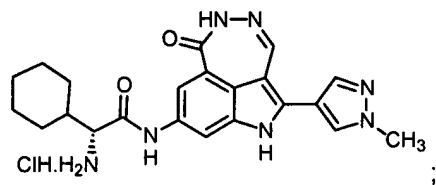
29. (original) The compound according to claim 1 wherein said R⁴ is H on position 7 of said compound of the formula I.

30. (original) The compound according to claim 1 wherein X is =O.

31. (original) The compound according to claim 1 wherein the group -Y-Z- has the formula -N=CH-.

32. (original) The compound according to claim 1 selected from the group consisting of:

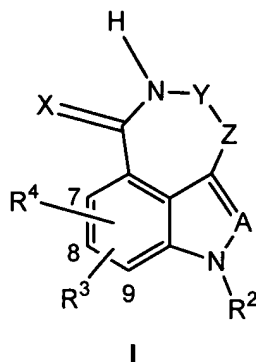




a pharmaceutically acceptable salt or solvate thereof.

Claims 33-45. (Canceled)

46. (new) A compound of the formula I:



wherein:

X is =O or =S;

A is =CR¹- or =N-;

The group -Y-Z- has the formula -O-CH₂- or -N=CH-;

R¹ is:

(a) (C₁-C₈)alkyl;

(b) -C(=O)-R⁵;

(c) -C(=O)-NR⁶R⁷; or

(d) R³⁵, or R³⁶, (C₂-C₈)alkenyl, or (C₂-C₈)alkynyl {wherein each of said (C₂-C₈)alkenyl or (C₂-C₈)alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of F, Cl, OH, -NH₂, R⁴⁰, and R⁴²};

R² is

(a) H, OH, or (C₁-C₈)alkyl;

(b) -C(=O)-R⁸;

(c) -(C=S)-R⁹ or -(C=S)-NR¹⁰R¹¹; or

(d) R³⁸ or R³⁹;

R³ is -NR¹⁵-C(=O)-R¹⁶;

R⁴ is selected from the group consisting of H, F, Br, Cl, and (C₁-C₈)alkyl;

R⁵ is selected from the group consisting of H, (C₁-C₈)alkyl, (C₁-C₈)alkyl-O-, and R³⁶;

Each R⁶ and R⁷ are independently selected from the group consisting of H, (C₁-C₈)alkyl, and R³⁶;

R⁸ is selected from the group consisting of (C₁-C₈)alkyl, (C₂-C₈)alkenyl, (C₂-C₈)alkynyl, -NH₂, R³⁶, and R³⁷;

Each of R⁹, R¹⁰ and R¹¹ are independently selected from the group consisting of H, (C₁-C₈)alkyl, and R³⁶;

R¹³ is H or (C₁-C₈)alkyl;

R¹⁵ is H or (C₁-C₈)alkyl;

R¹⁶ is (C₁-C₈)alkyl unsubstituted or substituted with one to four substituents independently selected from the group consisting of OH, R³³-O-, CN, -NH₂, (C₁-C₈)alkyl-NH-,

-NH-(CR¹³R¹⁵)_t(C₃-C₁₀)cycloalkyl, -NH-(CR¹³R¹⁵)_t(C₂-C₁₀)heterocyclyl, -NH-(CR¹³R¹⁵)_t(C₆-C₁₀)aryl, or -NH-(CR¹³R¹⁵)_t(C₁-C₁₀)heteroaryl-NH- {wherein t is an integer from 0 to 2}, [(C₁-C₈)alkyl]₂>N-, [(C₁-C₈)alkyl][(C₃-C₁₀)cycloalkyl]>N-, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl; wherein said R³³ is (C₁-C₈)alkyl, -(CR¹³R¹⁵)_q(C₃-C₁₀)cycloalkyl, -(CR¹³R¹⁵)_q(C₂-C₁₀)heterocyclyl, -(CR¹³R¹⁵)_q(C₆-C₁₀)aryl, or -(CR¹³R¹⁵)_q(C₁-C₁₀)heteroaryl; and wherein q is an integer from 0 to 2;

R²⁵ is H or (C₁-C₈)alkyl;

R²⁶ is selected from the group consisting of -C(=O)-O-C(CH₃)₃, (C₁-C₈)alkyl, -(CR¹³R¹⁵)_t(C₃-C₁₀)cycloalkyl, -(CR¹³R¹⁵)_t(C₂-C₁₀)heterocyclyl, -(CR¹³R¹⁵)_t(C₆-C₁₀)aryl, and -(CR¹³R¹⁵)_t(C₁-C₁₀)heteroaryl; wherein t is an integer from 0 to 2;

or R²⁵ and R²⁶ may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocyclyl ring;

R²⁷ is selected from the group consisting of (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

R²⁸ is selected from the group consisting of (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

R²⁹ is H or (C₁-C₈)alkyl;

R³⁰ is (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl;

or R²⁹ and R³⁰ may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocyclyl ring;

R³¹ is H or (C₁-C₈)alkyl;

R³² is independently selected from the group consisting of (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

or R³¹ and R³² may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocyclyl ring;

R³³ is (C₁-C₈)alkyl, -(CR¹³R¹⁵)_q(C₃-C₁₀)cycloalkyl, -(CR¹³R¹⁵)_q(C₂-C₁₀)heterocyclyl, -(CR¹³R¹⁵)_q(C₆-C₁₀)aryl, or -(CR¹³R¹⁵)_q(C₁-C₁₀)heteroaryl; wherein q is an integer from 0 to 2;

R³⁴ is (C₁-C₈)alkyl, -(CR¹³R¹⁵)_p(C₃-C₁₀)cycloalkyl, -(CR¹³R¹⁵)_p(C₂-C₁₀)heterocyclyl, -(CR¹³R¹⁵)_p(C₆-C₁₀)aryl, or -(CR¹³R¹⁵)_p(C₁-C₁₀)heteroaryl; wherein p is an integer from 0 to 2;

Each R³⁵ is independently selected from the group consisting of H, F, Cl, Br, I, CN, OH, NO₂, -NH₂, -NH-C(=O)-O-C(CH₃)₃, and CF₃;

Each R³⁶ is independently selected from the group consisting of (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

Each R³⁷ is independently selected from the group consisting of -NR²⁵R²⁶ and R²⁷-O-;

R³⁸ is R²⁸-SO_n-; wherein n is 0, 1, or 2 when -SO_n- is bonded to R²⁸ via an R²⁸ carbon atom, or wherein n is 1 or 2 when -SO_n- is bonded to R²⁸ via an R²⁸ ring nitrogen atom;

R^{39} is $R^{29}R^{30}N-SO_n-$; wherein n is 1 or 2;

wherein each of said (C_1-C_8) alkyl, wherever it occurs in any of said $R^1(a)-(d)$, $R^2(a)-(d)$, R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{13} , R^{15} , R^{25} , R^{26} , R^{27} , R^{28} , R^{29} , R^{30} , R^{31} , R^{32} , R^{33} , R^{34} , R^{37} , R^{38} , and R^{39} is unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C_2-C_8) alkenyl and R^{40} ;

wherein each of said (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, or (C_1-C_{10}) heteroaryl, wherever it occurs in said $R^1(b)-(d)$, $R^2(b)-(d)$, R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{13} , R^{15} , R^{25} , R^{26} , R^{27} , R^{28} , R^{30} , R^{32} , R^{33} , R^{34} , R^{36} , R^{37} , R^{38} , and R^{39} is independently unsubstituted or substituted with one to four substituents independently selected from R^{40} ;

R^{40} is selected from the group consisting of (C_1-C_8) alkyl, R^{41} , R^{42} , and R^{43} ;

Each R^{41} is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO_2 , $-NH_2$, $-NH-C(=O)-O-C(CH_3)_3$, $COOH$, $-C(=O)(C_1-C_8)alkyl$, $-C(=O)-O-(C_1-C_8)alkyl$, $-NH-SO_2-(C_1-C_8)alkyl$, $-NH-SO_2-(C_6-C_{10})aryl$, and CF_3 ;

Each R^{42} is independently selected from the group consisting of (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, and (C_1-C_{10}) heteroaryl;

Each R^{43} is independently selected from the group consisting of:

$-NR^{31}R^{32}$; $R^{33}-O-$; and $R^{34}-SO_n-$; wherein n is 0, 1, or 2 when $-SO_n-$ is bonded to R^{34} via an R^{34} carbon atom, or wherein n is 1 or 2 when $-SO_n-$ is bonded to R^{34} via an R^{34} ring nitrogen atom;

wherein each of said (C_1-C_8) alkyl, wherever it occurs in any of R^{40} and R^{41} is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{44} and R^{45} ;

wherein each of said (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, or (C_1-C_{10}) heteroaryl, wherever it occurs in any of said R^{42} or R^{43} , is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{47} selected from the group consisting of (C_1-C_8) alkyl, R^{44} , and R^{45} ;

Each R^{44} is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO_2 , $-NH_2$, $-CF_3$, $-C(=NH)-NH_2$, $-C(=NH)-NH-OH$, $-C(=NH)-NH-O-(C_1-C_8)alkyl$, $-(C=O)-O-(C_1-C_8)alkyl$, $-O-(C=O)-(C_1-C_8)alkyl$, $-(C=O)-(C_1-C_8)alkyl$, $-(C=O)-NH_2$, $-(C=O)-NH(C_1-C_8)alkyl$, $-(C=O)-N[(C_1-C_8)alkyl]_2$, $-NH-(C=O)-(C_1-C_8)alkyl$, R^{37} , and R^{38} ;

Each R^{45} is independently selected from the group consisting of (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, and (C_1-C_{10}) heteroaryl;

wherein each of said (C_1-C_8) alkyl wherever it occurs in any of said R^{44} or R^{45} is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{46} and R^{47} ;

wherein each of said (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, or (C_1-C_{10}) heteroaryl, wherever it occurs in any of said R^{43} or R^{44} is independently unsubstituted or

substituted with one to four substituents independently selected from the group consisting of (C₁-C₈)alkyl, R⁴⁶ and R⁴⁷;

Each R⁴⁶ is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO₂, -C(=NH)-NH₂, -C(=NH)-NH-OH, -C(=NH)-NH-O-(C₁-C₈)alkyl, -(C=O)-O-(C₁-C₈)alkyl, -O-(C=O)-(C₁-C₈)alkyl, -(C=O)-(C₁-C₈)alkyl, -(C=O)-NH₂, -(C=O)-NH(C₁-C₈)alkyl, -(C=O)-N<[(C₁-C₈)alkyl]₂, -NH-(C=O)-(C₁-C₈)alkyl, -C(=NH)-NH₂, -C(=NH)-NH-OH, -C(=NH)-NH-O-(C₁-C₈)alkyl, -(C=O)-O-(C₁-C₈)alkyl, -O-(C=O)-(C₁-C₈)alkyl, -(C=O)-(C₁-C₈)alkyl, -(C=O)-NH₂, -(C=O)-NH(C₁-C₈)alkyl, -(C=O)-N>[(C₁-C₈)alkyl]₂, -NH-(C=O)-(C₁-C₈)alkyl, R³⁷, and R³⁸; and

Each R⁴⁷ is independently selected from the group consisting of (C₃-C₁₀)cycloalkyl; (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

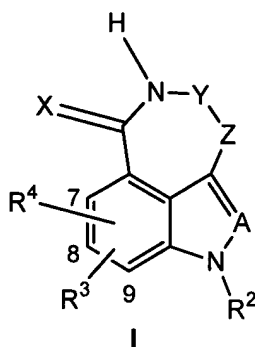
or a pharmaceutically acceptable salt thereof.

47. (new) The compound according to claim 46 wherein said (C₃-C₁₀)cycloalkyl substituent wherever it occurs is unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl.

48. (new) The compound according to claim 46 wherein said (C₆-C₁₀)aryl substituent wherever it occurs is unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₁-C₈)alkyl, F, Cl, Br, CN, OH, and CF₃.

49. (new) The compound according to claim 46 wherein said (C₂-C₁₀)heterocyclyl substituent wherever it occurs is unsubstituted or substituted with one or two substituents independently selected from the group consisting of (C₁-C₈)alkyl, -(C=O)-(C₁-C₈)alkyl, -(C=O)-O-(C₁-C₈)alkyl, -S-(C₁-C₈)alkyl, F, Br, OH, and CF₃.

50. (new) A compound of formula I,



wherein:

X is =O or =S;

A is =CR¹- or =N-;

The group -Y-Z- has the formula -O-CH₂- or -N=CH-;

R^1 is selected from the group consisting of (C_3-C_6) cycloalkyl, (C_2-C_{10}) heterocyclyl, phenyl, and (C_1-C_{10}) heteroaryl; wherein each of said (C_2-C_{10}) heterocyclyl, phenyl, or (C_1-C_{10}) heteroaryl is unsubstituted or substituted with one to three substituents independently selected from the group consisting of (C_1-C_8) alkyl, F, Cl, $-NH_2$, $-OH$, (C_1-C_8) alkyl-NH-, and $[(C_1-C_8)alkyl]_2N-$; wherein each of said (C_1-C_8) alkyl substituent, wherever it occurs, is unsubstituted or substituted with one to three substituents selected from $-NH_2$, (C_1-C_8) alkyl-NH-, $[(C_1-C_8)alkyl]_2N-$, $-O-(C=O)-(C_1-C_8)alkyl$, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, and (C_1-C_{10}) heteroaryl;

R^2 is

- (a) H, OH, or (C_1-C_8) alkyl;
- (b) $-C(=O)-R^8$;
- (c) $-(C=S)-R^9$ or $-(C=S)-NR^{10}R^{11}$; or
- (d) R^{38} or R^{39} ;

R^3 is

- (a) R^{38} ;
- (b) $-C(=O)-R^{12}$;
- (c) $-C(=O)-NR^{13}R^{14}$;
- (d) $-NR^{15}-C(=O)-R^{16}$;
- (e) $-NR^{17}-SO_2R^{18}$;
- (f) $-NR^{19}-SO_n-NR^{20}R^{21}$ {wherein n is 1 or 2};
- (g) $-NR^{22}-(C=S)-R^{23}$ or $-NR^{22}-(C=S)-NR^{23}R^{24}$;

(h) R^{36} , (C_2-C_8) alkenyl, or (C_2-C_8) alkynyl {wherein each of said R^3 (C_2-C_8) alkenyl or (C_2-C_8) alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of $-(C=O)-O-(C_1-C_8)alkyl$, $-O-(C=O)-(C_1-C_8)alkyl$, $-(C=O)-(C_1-C_8)alkyl$, R^{40} , R^{41} , and R^{42} }; or

(i) R^{37} , $-NH_2$, $-NH((C_2-C_8)alkenyl)$, $-NH((C_2-C_8)alkynyl)$, $-N((C_1-C_8)alkyl)((C_2-C_8)alkenyl)$, or $-N((C_1-C_8)alkyl)((C_2-C_8)alkynyl)$ {wherein each of said R^{26} (C_2-C_8) alkenyl or (C_2-C_8) alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{40} , R^{41} , and R^{42} };

R^4 is selected from the group consisting of H, F, Br, Cl, and $(C_1-C_8)alkyl$;

R^8 is selected from the group consisting of $(C_1-C_8)alkyl$, $(C_2-C_8)alkenyl$, $(C_2-C_8)alkynyl$, $-NH_2$, R^{36} , and R^{37} ;

Each of R^9 , R^{10} and R^{11} are independently selected from the group consisting of H, $(C_1-C_8)alkyl$, and R^{36} ;

R^{12} is selected from the group consisting of H, OH, $(C_1-C_8)alkyl$, $(C_1-C_8)alkyl-O-$, and R^{36} ;

R^{13} is H or $(C_1-C_8)alkyl$;

R^{14} is selected from the group consisting of H, $(C_1-C_8)alkyl$, $-CH_2-(C=O)-O-(C_1-C_8)alkyl$, and R^{36} ;

R^{15} is H or (C_1-C_8) alkyl;

R^{16} is selected from the group consisting of H, (C_1-C_8) alkyl, (C_2-C_8) alkenyl, (C_2-C_8) alkynyl, $-NH_2$, R^{36} , and R^{37} ;

wherein said R^{16} (C_2-C_8) alkenyl or (C_2-C_8) alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{40} ;

R^{17} is selected from the group consisting of H, (C_1-C_8) alkyl, and R^{36} ;

R^{18} is (C_1-C_8) alkyl or R^{36} ;

R^{19} , R^{20} , and R^{21} are independently selected from the group consisting of H, (C_1-C_8) alkyl, and R^{36} ;

R^{22} , R^{23} and R^{24} are independently selected from the group consisting of H, (C_1-C_8) alkyl, and R^{36} ;

R^{25} is H or (C_1-C_8) alkyl;

R^{26} is selected from the group consisting of $-C(=O)-O-C(CH_3)_3$, (C_1-C_8) alkyl, $-(CR^{13}R^{15})_t(C_3-C_{10})$ cycloalkyl, $-(CR^{13}R^{15})_t(C_2-C_{10})$ heterocyclyl, $-(CR^{13}R^{15})_t(C_6-C_{10})$ aryl, and $-(CR^{13}R^{15})_t(C_1-C_{10})$ heteroaryl; wherein t is an integer from 0 to 2;

or R^{25} and R^{26} may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocyclyl ring;

R^{27} is selected from the group consisting of (C_1-C_8) alkyl, (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, and (C_1-C_{10}) heteroaryl;

R^{28} is selected from the group consisting of (C_1-C_8) alkyl, (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, and (C_1-C_{10}) heteroaryl;

R^{29} is H or (C_1-C_8) alkyl;

R^{30} is (C_1-C_8) alkyl, (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, or (C_1-C_{10}) heteroaryl;

or R^{29} and R^{30} may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocyclyl ring;

R^{31} is H or (C_1-C_8) alkyl;

R^{32} is independently selected from the group consisting of (C_1-C_8) alkyl, (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, and (C_1-C_{10}) heteroaryl;

or R^{31} and R^{32} may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocyclyl ring;

R^{33} is (C_1-C_8) alkyl, $-(CR^{13}R^{15})_q(C_3-C_{10})$ cycloalkyl, $-(CR^{13}R^{15})_q(C_2-C_{10})$ heterocyclyl, $-(CR^{13}R^{15})_q(C_6-C_{10})$ aryl, or $-(CR^{13}R^{15})_q(C_1-C_{10})$ heteroaryl; wherein q is an integer from 0 to 2;

R^{34} is (C_1-C_8) alkyl, $-(CR^{13}R^{15})_p(C_3-C_{10})$ cycloalkyl, $-(CR^{13}R^{15})_p(C_2-C_{10})$ heterocyclyl, $-(CR^{13}R^{15})_p(C_6-C_{10})$ aryl, or $-(CR^{13}R^{15})_p(C_1-C_{10})$ heteroaryl; wherein p is an integer from 0 to 2;

Each R^{35} is independently selected from the group consisting of H, F, Cl, Br, I, CN, OH, NO_2 , $-NH_2$, $-NH-C(=O)-O-C(CH_3)_3$, and CF_3 ;

Each R^{36} is independently selected from the group consisting of (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, and (C_1-C_{10}) heteroaryl;

Each R^{37} is independently selected from the group consisting of $-NR^{25}R^{26}$ and $R^{27}-O-$;

R^{38} is $R^{28}-SO_n-$; wherein n is 0, 1, or 2 when $-SO_n-$ is bonded to R^{28} via an R^{28} carbon atom, or wherein n is 1 or 2 when $-SO_n-$ is bonded to R^{28} via an R^{28} ring nitrogen atom;

R^{39} is $R^{29}R^{30}N-SO_n-$; wherein n is 1 or 2;

wherein each of said (C_1-C_8) alkyl, wherever it occurs in any of said $R^1(a)-(d)$, $R^2(a)-(d)$, $R^3(a)-(i)$, R^4 , R^8 , R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{22} , R^{23} , R^{24} , R^{25} , R^{26} , R^{27} , R^{28} , R^{29} , R^{30} , R^{31} , R^{32} , R^{33} , R^{34} , R^{37} , R^{38} , and R^{39} is unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C_2-C_8) alkenyl and R^{40} ;

wherein each of said (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, or (C_1-C_{10}) heteroaryl, wherever it occurs in said $R^1(b)-(d)$, $R^2(b)-(d)$, $R^3(a)-(i)$, R^4 , R^8 , R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{22} , R^{23} , R^{24} , R^{25} , R^{26} , R^{27} , R^{28} , R^{30} , R^{32} , R^{33} , R^{34} , R^{36} , R^{37} , R^{38} , and R^{39} is independently unsubstituted or substituted with one to four substituents independently selected from R^{40} ;

R^{40} is selected from the group consisting of (C_1-C_8) alkyl, R^{41} , R^{42} , and R^{43} ;

Each R^{41} is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO_2 , $-NH_2$, $-NH-C(=O)-O-C(CH_3)_3$, $COOH$, $-C(=O)(C_1-C_8)alkyl$, $-C(=O)-O-(C_1-C_8)alkyl$, $-NH-SO_2-(C_1-C_8)alkyl$, $-NH-SO_2-(C_6-C_{10})aryl$, and CF_3 ;

Each R^{42} is independently selected from the group consisting of (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, and (C_1-C_{10}) heteroaryl;

Each R^{43} is independently selected from the group consisting of:

$-NR^{31}R^{32}$; $R^{33}-O-$; and $R^{34}-SO_n-$; wherein n is 0, 1, or 2 when $-SO_n-$ is bonded to R^{34} via an R^{34} carbon atom, or wherein n is 1 or 2 when $-SO_n-$ is bonded to R^{34} via an R^{34} ring nitrogen atom;

wherein each of said (C_1-C_8) alkyl, wherever it occurs in any of R^{40} and R^{41} is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{44} and R^{45} ;

wherein each of said (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, or (C_1-C_{10}) heteroaryl, wherever it occurs in any of said R^{42} or R^{43} , is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{47} selected from the group consisting of (C_1-C_8) alkyl, R^{44} , and R^{45} ;

Each R^{44} is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO_2 , $-NH_2$, $-CF_3$, $-C(=NH)-NH_2$, $-C(=NH)-NH-OH$, $-C(=NH)-NH-O-(C_1-C_8)alkyl$, $-C(=O)-O-(C_1-C_8)alkyl$, $-O-(C=O)-(C_1-C_8)alkyl$, $-(C=O)-(C_1-C_8)alkyl$, $-(C=O)-NH_2$, $-(C=O)-NH(C_1-C_8)alkyl$, $-(C=O)-N[(C_1-C_8)alkyl]_2$, $-NH-(C=O)-(C_1-C_8)alkyl$, R^{37} , and R^{38} ;

Each R^{45} is independently selected from the group consisting of (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, and (C_1-C_{10}) heteroaryl;

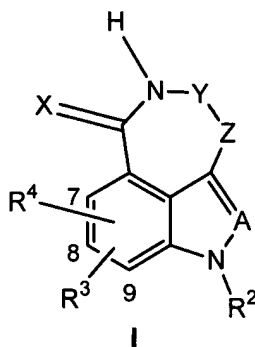
wherein each of said (C_1-C_8) alkyl wherever it occurs in any of said R^{44} or R^{45} is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{46} and R^{47} ;

wherein each of said (C_3-C_{10}) cycloalkyl, (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, or (C_1-C_{10}) heteroaryl, wherever it occurs in any of said R^{43} or R^{44} is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C_1-C_8) alkyl, R^{46} and R^{47} ;

Each R^{46} is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO_2 , $-C(=NH)-NH_2$, $-C(=NH)-NH-OH$, $-C(=NH)-NH-O-(C_1-C_8)alkyl$, $-(C=O)-O-(C_1-C_8)alkyl$, $-O-(C=O)-(C_1-C_8)alkyl$, $-(C=O)-(C_1-C_8)alkyl$, $-(C=O)-NH_2$, $-(C=O)-NH(C_1-C_8)alkyl$, $-(C=O)-N<[(C_1-C_8)alkyl]_2$, $-NH-(C=O)-(C_1-C_8)alkyl$, $-C(=NH)-NH_2$, $-C(=NH)-NH-OH$, $-C(=NH)-NH-O-(C_1-C_8)alkyl$, $-(C=O)-O-(C_1-C_8)alkyl$, $-O-(C=O)-(C_1-C_8)alkyl$, $-(C=O)-(C_1-C_8)alkyl$, $-(C=O)-NH_2$, $-(C=O)-NH(C_1-C_8)alkyl$, $-(C=O)-N>[(C_1-C_8)alkyl]_2$, $-NH-(C=O)-(C_1-C_8)alkyl$, R^{37} , and R^{38} ; and

Each R^{47} is independently selected from the group consisting of (C_3-C_{10}) cycloalkyl; (C_2-C_{10}) heterocyclyl, (C_6-C_{10}) aryl, and (C_1-C_{10}) heteroaryl; or a pharmaceutically acceptable salt thereof.

51. (new) A compound of formula I,



wherein:

X is $=O$ or $=S$;

A is $=CR^1-$ or $=N-$;

The group $-Y-Z-$ has the formula $-N=CH-$;

R^1 is:

(a) $(C_1-C_8)alkyl$;

(b) $-C(=O)-R^5$;

(c) $-C(=O)-NR^6R^7$; or

(d) R^{35} , or R^{36} , (C_2-C_8) alkenyl, or (C_2-C_8) alkynyl {wherein each of said (C_2-C_8) alkenyl or (C_2-C_8) alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of F, Cl, OH, $-NH_2$, R^{40} , and R^{42} };

R^2 is

- (a) H, OH, or (C_1-C_8) alkyl;
- (b) $-C(=O)-R^8$;
- (c) $-(C=S)-R^9$ or $-(C=S)-NR^{10}R^{11}$; or
- (d) R^{38} or R^{39} ;

R^3 is

- (a) R^{38} ;
- (b) $-C(=O)-R^{12}$;
- (c) $-C(=O)-NR^{13}R^{14}$;
- (d) $-NR^{15}-C(=O)-R^{16}$;
- (e) $-NR^{17}-SO_2R^{18}$;
- (f) $-NR^{19}-SO_n-NR^{20}R^{21}$ {wherein n is 1 or 2};
- (g) $-NR^{22}-(C=S)-R^{23}$ or $-NR^{22}-(C=S)-NR^{23}R^{24}$;

(h) R^{36} , (C_2-C_8) alkenyl, or (C_2-C_8) alkynyl {wherein each of said R^3 (C_2-C_8) alkenyl or (C_2-C_8) alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of $-(C=O)-O-(C_1-C_8)$ alkyl, $-O-(C=O)-(C_1-C_8)$ alkyl, $-(C=O)-(C_1-C_8)$ alkyl, R^{40} , R^{41} , and R^{42} }; or

(i) R^{37} , $-NH_2$, $-NH((C_2-C_8)$ alkenyl), $-NH((C_2-C_8)$ alkynyl), $-N((C_1-C_8)$ alkyl)((C_2-C_8)alkenyl), or $-N((C_1-C_8)$ alkyl)((C_2-C_8)alkynyl) {wherein each of said R^{26} (C_2-C_8) alkenyl or (C_2-C_8) alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{40} , R^{41} , and R^{42} };

R^4 is selected from the group consisting of H, F, Br, Cl, and (C_1-C_8) alkyl;

R^5 is selected from the group consisting of H, (C_1-C_8) alkyl, (C_1-C_8) alkyl-O-, and R^{36} ;

Each R^6 and R^7 are independently selected from the group consisting of H, (C_1-C_8) alkyl, and R^{36} ;

R^8 is selected from the group consisting of (C_1-C_8) alkyl, (C_2-C_8) alkenyl, (C_2-C_8) alkynyl, $-NH_2$, R^{36} , and R^{37} ;

Each of R^9 , R^{10} and R^{11} are independently selected from the group consisting of H, (C_1-C_8) alkyl, and R^{36} ;

R^{12} is selected from the group consisting of H, OH, (C_1-C_8) alkyl, (C_1-C_8) alkyl-O-, and R^{36} ;

R^{13} is H or (C_1-C_8) alkyl;

R^{14} is selected from the group consisting of H, (C_1-C_8) alkyl, $-CH_2-(C=O)-O-(C_1-C_8)$ alkyl, and R^{36} ;

R^{15} is H or (C_1-C_8) alkyl;

R¹⁶ is selected from the group consisting of H, (C₁-C₈)alkyl, (C₂-C₈)alkenyl, (C₂-C₈)alkynyl, -NH₂, R³⁶, and R³⁷;

wherein said R¹⁶ (C₂-C₈)alkenyl or (C₂-C₈)alkynyl is unsubstituted or substituted with one to four substituents independently selected from the group consisting of R⁴⁰;

R¹⁷ is selected from the group consisting of H, (C₁-C₈)alkyl, and R³⁶;

R¹⁸ is (C₁-C₈)alkyl or R³⁶;

R¹⁹, R²⁰, and R²¹ are independently selected from the group consisting of H, (C₁-C₈)alkyl, and R³⁶;

R²², R²³ and R²⁴ are independently selected from the group consisting of H, (C₁-C₈)alkyl, and R³⁶;

R²⁵ is H or (C₁-C₈)alkyl;

R²⁶ is selected from the group consisting of -C(=O)-O-C(CH₃)₃, (C₁-C₈)alkyl, -(CR¹³R¹⁵)_t(C₃-C₁₀)cycloalkyl, -(CR¹³R¹⁵)_t(C₂-C₁₀)heterocyclyl, -(CR¹³R¹⁵)_t(C₆-C₁₀)aryl, and -(CR¹³R¹⁵)_t(C₁-C₁₀)heteroaryl; wherein t is an integer from 0 to 2;

or R²⁵ and R²⁶ may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocycl ring;

R²⁷ is selected from the group consisting of (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

R²⁸ is selected from the group consisting of (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

R²⁹ is H or (C₁-C₈)alkyl;

R³⁰ is (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl;

or R²⁹ and R³⁰ may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocycl ring;

R³¹ is H or (C₁-C₈)alkyl;

R³² is independently selected from the group consisting of (C₁-C₈)alkyl, (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

or R³¹ and R³² may optionally be taken together with the nitrogen to which they are attached to form a 5 to 8-membered heteroaryl or heterocycl ring;

R³³ is (C₁-C₈)alkyl, -(CR¹³R¹⁵)_q(C₃-C₁₀)cycloalkyl, -(CR¹³R¹⁵)_q(C₂-C₁₀)heterocyclyl, -(CR¹³R¹⁵)_q(C₆-C₁₀)aryl, or -(CR¹³R¹⁵)_q(C₁-C₁₀)heteroaryl; wherein q is an integer from 0 to 2;

R³⁴ is (C₁-C₈)alkyl, -(CR¹³R¹⁵)_p(C₃-C₁₀)cycloalkyl, -(CR¹³R¹⁵)_p(C₂-C₁₀)heterocyclyl, -(CR¹³R¹⁵)_p(C₆-C₁₀)aryl, or -(CR¹³R¹⁵)_p(C₁-C₁₀)heteroaryl; wherein p is an integer from 0 to 2;

Each R³⁵ is independently selected from the group consisting of H, F, Cl, Br, I, CN, OH, NO₂, -NH₂, -NH-C(=O)-O-C(CH₃)₃, and CF₃;

Each R^{36} is independently selected from the group consisting of (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

Each R^{37} is independently selected from the group consisting of $-NR^{25}R^{26}$ and $R^{27}-O-$;

R^{38} is $R^{28}-SO_n-$; wherein n is 0, 1, or 2 when $-SO_n-$ is bonded to R^{28} via an R^{28} carbon atom, or wherein n is 1 or 2 when $-SO_n-$ is bonded to R^{28} via an R^{28} ring nitrogen atom;

R^{39} is $R^{29}R^{30}N-SO_n-$; wherein n is 1 or 2;

wherein each of said (C₁-C₈)alkyl, wherever it occurs in any of said $R^1(a)-(d)$, $R^2(a)-(d)$, $R^3(a)-(i)$, R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{22} , R^{23} , R^{24} , R^{25} , R^{26} , R^{27} , R^{28} , R^{29} , R^{30} , R^{31} , R^{32} , R^{33} , R^{34} , R^{37} , R^{38} , and R^{39} is unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₂-C₈)alkenyl and R^{40} ;

wherein each of said (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl, wherever it occurs in said $R^1(b)-(d)$, $R^2(b)-(d)$, $R^3(a)-(i)$, R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{22} , R^{23} , R^{24} , R^{25} , R^{26} , R^{27} , R^{28} , R^{30} , R^{32} , R^{33} , R^{34} , R^{36} , R^{37} , R^{38} , and R^{39} is independently unsubstituted or substituted with one to four substituents independently selected from R^{40} ;

R^{40} is selected from the group consisting of (C₁-C₈)alkyl, R^{41} , R^{42} , and R^{43} ;

Each R^{41} is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO₂, -NH₂, -NH-C(=O)-O-C(CH₃)₃, COOH, -C(=O)(C₁-C₈)alkyl, -C(=O)-O-(C₁-C₈)alkyl, -NH-SO₂-(C₁-C₈)alkyl, -NH-SO₂-(C₆-C₁₀)aryl, and CF₃;

Each R^{42} is independently selected from the group consisting of (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

Each R^{43} is independently selected from the group consisting of:

$-NR^{31}R^{32}$, $R^{33}-O-$; and $R^{34}-SO_n-$; wherein n is 0, 1, or 2 when $-SO_n-$ is bonded to R^{34} via an R^{34} carbon atom, or wherein n is 1 or 2 when $-SO_n-$ is bonded to R^{34} via an R^{34} ring nitrogen atom;

wherein each of said (C₁-C₈)alkyl, wherever it occurs in any of R^{40} and R^{41} is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{44} and R^{45} ;

wherein each of said (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl, wherever it occurs in any of said R^{42} or R^{43} , is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R^{47} selected from the group consisting of (C₁-C₈)alkyl, R^{44} , and R^{45} ;

Each R^{44} is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO₂, -NH₂, -CF₃, -C(=NH)-NH₂, -C(=NH)-NH-OH, -C(=NH)-NH-O-(C₁-C₈)alkyl, -C(=O)-O-(C₁-C₈)alkyl, -O-C(=O)-(C₁-C₈)alkyl, -C(=O)-(C₁-C₈)alkyl, -C(=O)-NH₂, -C(=O)-NH(C₁-C₈)alkyl, -C(=O)-N<[(C₁-C₈)alkyl]₂, -NH-C(=O)-(C₁-C₈)alkyl, R^{37} , and R^{38} ;

Each R⁴⁵ is independently selected from the group consisting of (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

wherein each of said (C₁-C₈)alkyl wherever it occurs in any of said R⁴⁴ or R⁴⁵ is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of R⁴⁶ and R⁴⁷;

wherein each of said (C₃-C₁₀)cycloalkyl, (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, or (C₁-C₁₀)heteroaryl, wherever it occurs in any of said R⁴³ or R⁴⁴ is independently unsubstituted or substituted with one to four substituents independently selected from the group consisting of (C₁-C₈)alkyl, R⁴⁶ and R⁴⁷;

Each R⁴⁶ is independently selected from the group consisting of F, Cl, Br, I, CN, OH, NO₂, -C(=NH)-NH₂, -C(=NH)-NH-OH, -C(=NH)-NH-O-(C₁-C₈)alkyl, -(C=O)-O-(C₁-C₈)alkyl, -O-(C=O)-(C₁-C₈)alkyl, -(C=O)-(C₁-C₈)alkyl, -(C=O)-NH₂, -(C=O)-NH(C₁-C₈)alkyl, -(C=O)-N<[(C₁-C₈)alkyl]₂, -NH-(C=O)-(C₁-C₈)alkyl, -C(=NH)-NH₂, -C(=NH)-NH-OH, -C(=NH)-NH-O-(C₁-C₈)alkyl, -(C=O)-O-(C₁-C₈)alkyl, -O-(C=O)-(C₁-C₈)alkyl, -(C=O)-(C₁-C₈)alkyl, -(C=O)-NH₂, -(C=O)-NH(C₁-C₈)alkyl, -(C=O)-N>[(C₁-C₈)alkyl]₂, -NH-(C=O)-(C₁-C₈)alkyl, R³⁷, and R³⁸; and

Each R⁴⁷ is independently selected from the group consisting of (C₃-C₁₀)cycloalkyl; (C₂-C₁₀)heterocyclyl, (C₆-C₁₀)aryl, and (C₁-C₁₀)heteroaryl;

or a pharmaceutically acceptable salt thereof.